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CERTIFICATE

This certificate is issued in support of an application for Patent registration in a country outside New Zealand pursuant to the Patents Act 1953 and the Regulations thereunder.

I hereby certify that annexed is a true copy of the Provisional Specification as filed on 9 June 2003 with an application for Letters Patent number 526353 made by KEITH VIVIAN ALEXANDER.

I further certify that pursuant to a claim under Section 24(1) of the Patents Act 1953, a direction was given that the application proceed in the name of BOARD & BATTEN INTERNATIONAL INC.

Dated 8 July 2004.

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Neville Harris
Commissioner of Patents, Trade Marks and Designs



526353

NEW ZEALAND PATENTS ACT 1953

PROVISIONAL SPECIFICATION

TRAMPOLINE ENCLOSURE

I, KEITH VIVIAN ALEXANDER, a New Zealand citizen of 64 Middleton Road, Upper Riccarton, Christchurch, New Zealand, do hereby declare this invention to be described in the following statement:

INTELLECTUAL PROPERTY OFFICE OF N.Z.
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TRAMPOLINE ENCLOSURE

FIELD OF THE INVENTION

- 5 The present invention relates to an enclosure for a trampoline that provides a rebounding surface in addition to the trampoline surface.

BACKGROUND TO THE INVENTION

- 10 Enclosures have been developed and sold to contribute to the safety of conventional trampolines. Such enclosures for a conventional trampoline are shown in Figure 1 and Figure 2. These enclosures are primarily designed as a safety device to prevent users falling from the trampoline. They are not suitable for users to deliberately bounce against them for play purposes. The enclosures are generally fairly rigid in nature, and
15 in particular the upright poles. Should a user deliberately jump into the enclosure, they could hit a rigid pole and/or the outer horizontal frame that supports the trampoline mat. Both types of contact could result in injury to the user.

SUMMARY OF THE INVENTION

- 20 It is an object of the invention to provide a trampoline enclosure that provides a rebounding surface.

- 25 In one aspect the present invention may be said to consist in a trampoline enclosure adapted to be installed a soft edge trampoline including: a plurality of resilient rods for attaching to the trampoline frame, and an enclosure wall for attaching to the rods and to, or in proximity to, the perimeter of the trampoline mat.

Preferably the rod a made from pultruded fibreglass.

30

Preferably the curtain is netting.

Preferably the top of the curtain includes pockets for attaching the curtain to the top of the rods. Preferably the rods have ball endings.

- 5 Preferably the bottom of the curtain has a band with holes for connection of the curtain to the spring rods of the trampoline near the trampoline mat.

The enclosure may be supplied in component form as a kit, or preassembled, for attachment to the trampoline.

- 10 In another embodiment the present invention may be said to consist in a soft edge trampoline with an enclosure, the enclosure including: a plurality of resilient rods attached to the trampoline frame, and an enclosure wall attached to the rods and to, or in proximity to, the perimeter of the trampoline mat.
- 15 Preferably the rod a made from pultruded fibreglass.

Preferably the curtain is netting.

- 20 Preferably the top of the curtain includes pockets for attaching the curtain to the top of the rods. Preferably the rods have ball endings.

Preferably the bottom of the curtain has a band with holes for connection of the curtain to the spring rods of the trampoline near the trampoline mat.

25 **BRIEF DESCRIPTION OF THE DRAWINGS**

Preferred embodiments of the invention will be described with reference to the accompanying drawings, of which:

- 30 Figures 1 and 2 show conventional enclosures on conventional trampolines,
Figure 3 shows a soft edge trampoline,

Figure 4 shows an enclosure according to one embodiment of the invention installed on a soft edge trampoline,

Figures 5 and 6 show attachment of the enclosure rods to pockets on the curtain,

Figures 7 and 8 show attachment of the bottom of the curtain to the trampoline rods,

5 Figure 9 shows an opening in the enclosure wall, and

Figure 10 shows the trampoline in use.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

10 The present invention relates to an enclosure for the particular type of trampoline that uses flexible cantilevered rods for springs. An example of such a trampoline is shown in Figure 3. This type of trampoline has a soft and resilient outer edge, with the steel frame tucked away underneath, providing a potentially safer jumping environment than a conventional trampoline where the steel frame is around the edge and can be hit by a
15 user.

The enclosure according an embodiment of the invention is adapted for use with the trampoline in Figure 3 is shown installed on the trampoline in Figure 4. It comprises flexible/resilient poles or rods attached at one end to the trampoline frame that extend vertically. A net curtain or similar is attached to the poles near the top and also near the trampoline mat in a manner to be described with reference to Figures 7 and 8. The enclosure may come supplied with the trampoline, or separately, and may be factory fitted, or retrospectively self fitted. It may come in component form as a kit, or preassembled for attachment to the trampoline. This provides an enclosure that is
20 specifically designed to function as a play addition to the soft-edged trampoline. The particular combination of
25

- (a) the soft-edged trampoline and
- (b) enclosure, and
- (c) supported by flexible/resilient rods is

30 uniquely suited to the use of the enclosure in trampoline play because a jumper hitting the enclosure wall and falling on the trampoline edge is in no danger of injury as the trampoline edge is soft and designed for such an event. As the trampoline frame is

underneath the trampoline matt, the frame will not be hit when rebounding off the enclosure wall. Also the flexible rods are both difficult for the jumper to hit and readily move on impact so as not to cause injury.

- 5 This is in contrast to conventional trampolines with enclosures such as in Figure 3 and 4, where the enclosure is designed purely for safety. On a conventional trampoline, if a jumper impacts the enclosure wall and falls they land on the steel frame of the trampoline or at least the padded covering. Equally if they hit a support pole it is relatively rigid. They are therefore not suited to using the enclosure for play, and are
- 10 designed as safety features.

A possible embodiment of the enclosure also provide an enclosure net with a substantially vertical, robust and resilient impact surface of sufficient strength to bounce a person back on to the trampoline. It also provides flexible support rods (as shown in

15 Figure 4) that

- (a) Are so removed from the curtain surface as to be difficult to hit,
 - (b) That are so flexible as to not cause injury when they are hit from the side,
 - 20 (c) That are so flexible as to not cause injury if landed on from above and
 - (d) Provide enough tension to the net to give the required rebounding response to the jumper hitting it.
- 25 The enclosure also provides the safety function achieved by conventional trampoline enclosures and can be assembled on a soft edged trampoline.

The following features may be included in an embodiment:

- 30 i) Support rods of pultruded fibreglass which, acting like fishing rods, both hold up and tension the upper edge of the enclosure net adequately for the play function.

- ii) Support rods which may be attached to fittings in the frame as shown in Figure 4
 - iii) Enough support rods to provide the tensioning function and produces an enclosure that does not intrude over the jumping surface. In Figure 4, 12 rods are used to achieve this.
 - iv) An enclosure net that includes inverted pockets in the top edge to engage and retain the tops of the support rods, as shown in Figures 5 and 6.
 - v) Support rods with a ball-shaped top fitting to both engage in the net inverted pocket and prevent the rod from penetrating the net inverted pocket, especially on impact from above, as shown in Figures 5 and 6.
 - vi) An enclosure net which has sewn into the bottom edge a band of plain material (in this case PVC fabric) with holes for engagement on the trampoline rods as shown in Figures 7 and 8. Cleats may secure the trampoline rods to the band.
 - vii) The enclosure net may also have a second bottom edge band or flap of plain material sewn around the inside at the bottom, to form a flap that covers the gap between the net and the edge of the mat.
 - viii) The enclosure net may also incorporate a door which may be a flap sewn into the net, hung from its top edge and which seals around its edges with Velcro, as shown in Figure 9.

Figure 10 shows the trampoline enclosure in use.

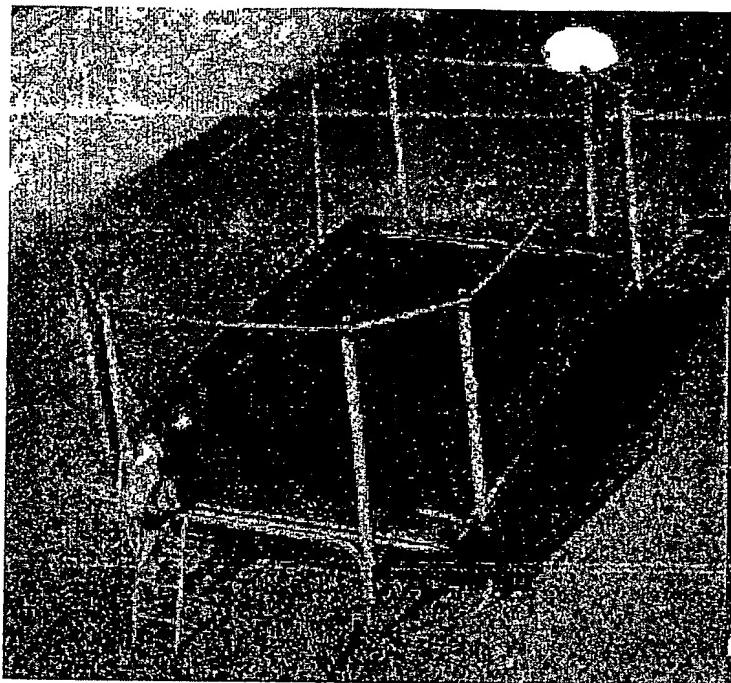


Figure 1: Enclosure on a conventional rectangular trampoline

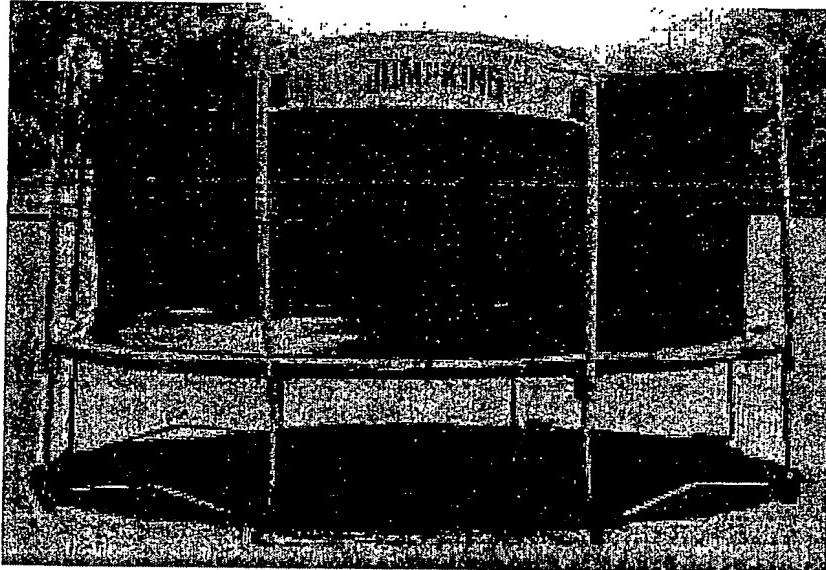


Figure 2: Enclosure on conventional round trampoline

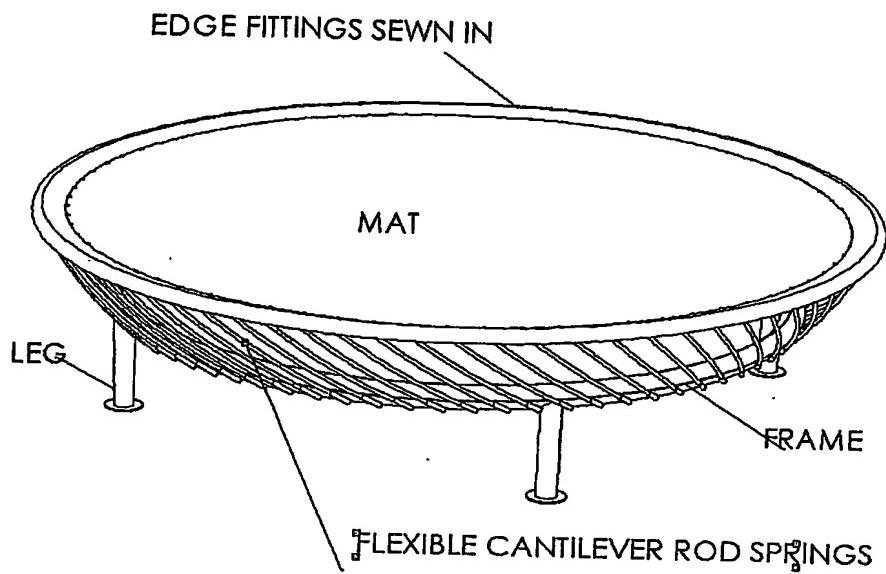


Figure 3: Trampoline with flexible cantilever rods for springs

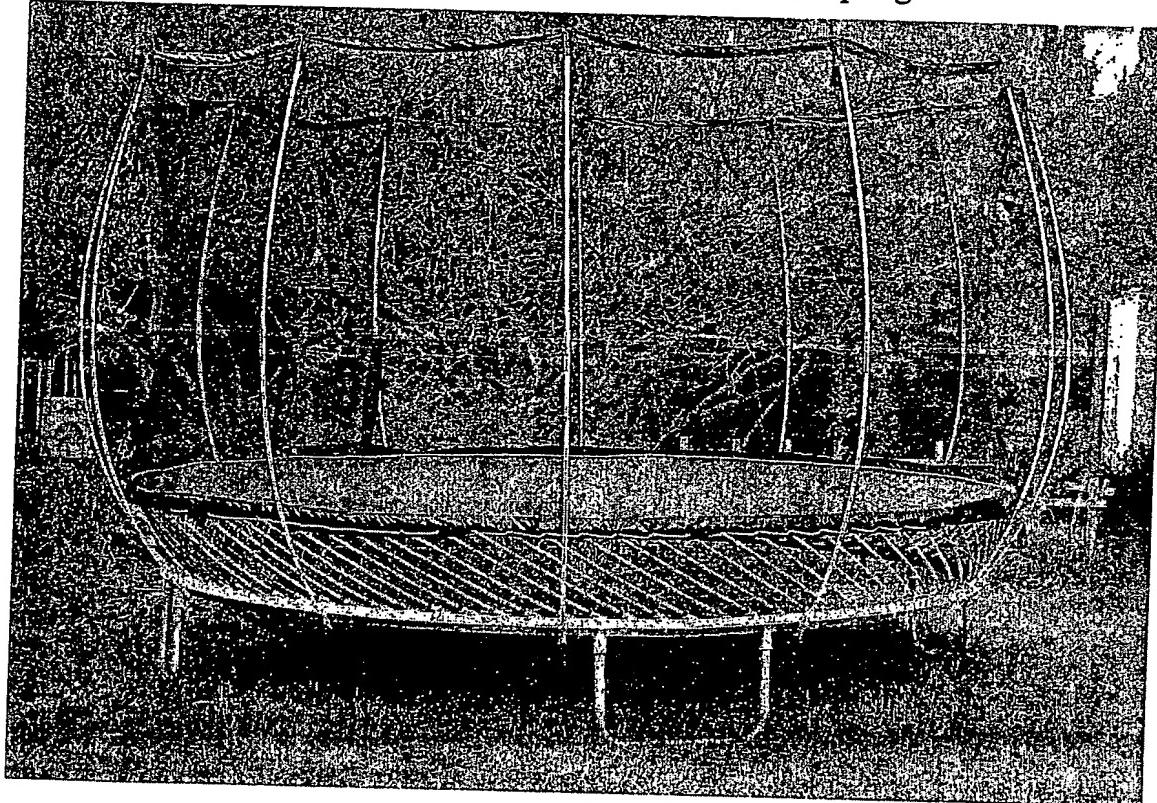


Figure 4: A soft-edged trampoline fitted with an enclosure

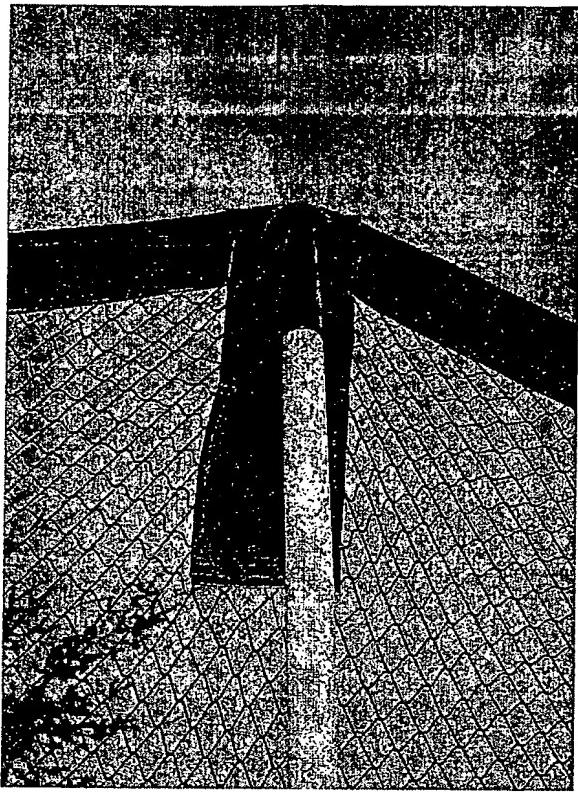


Figure 5: Rod in top pocket

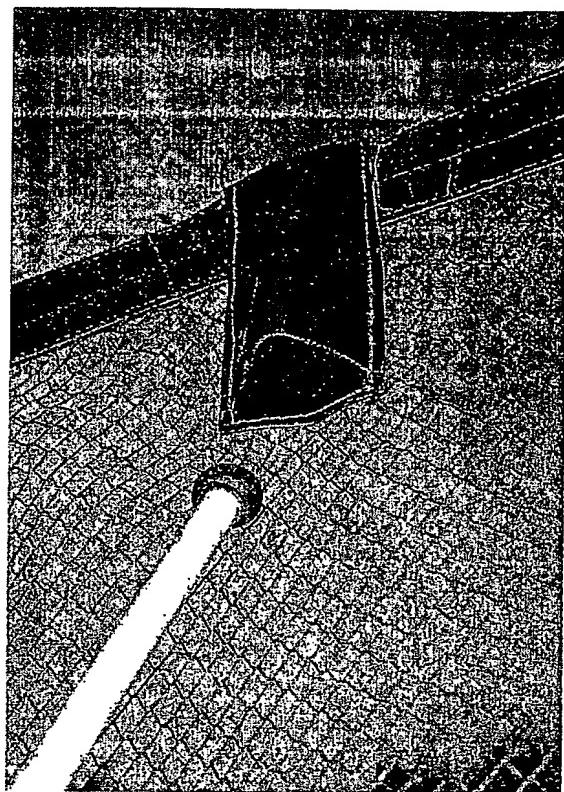


Figure 6: Rod top fitted with ball

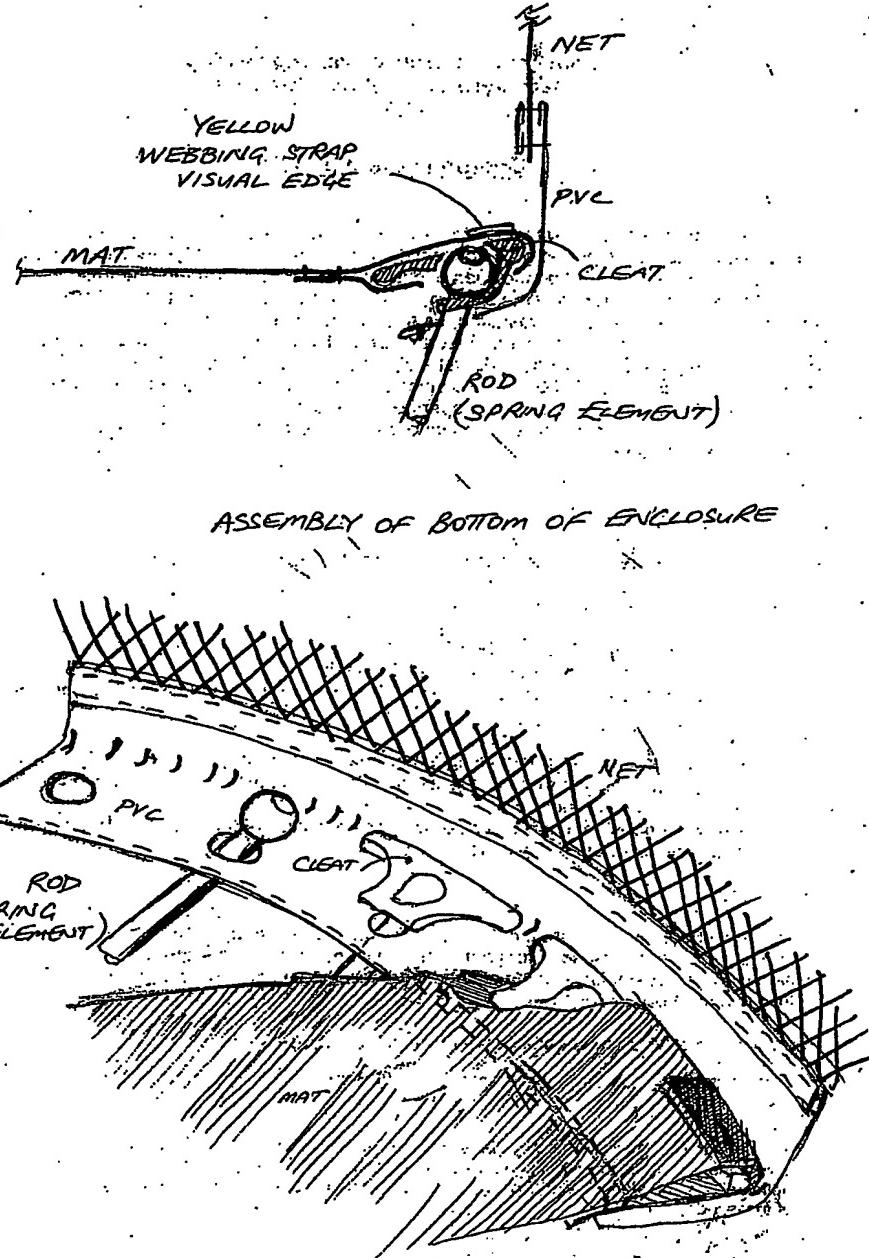


Figure 7: Attachment of the net bottom edge to the rods

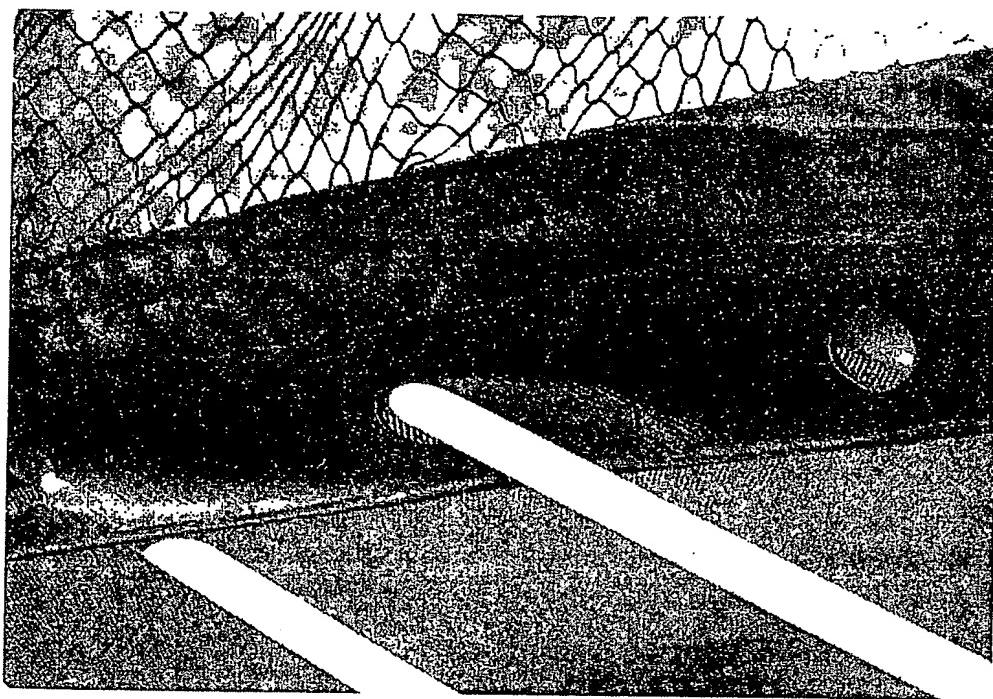


Figure 8: One rod assembled through the hole provided for the purpose in the net bottom edge material

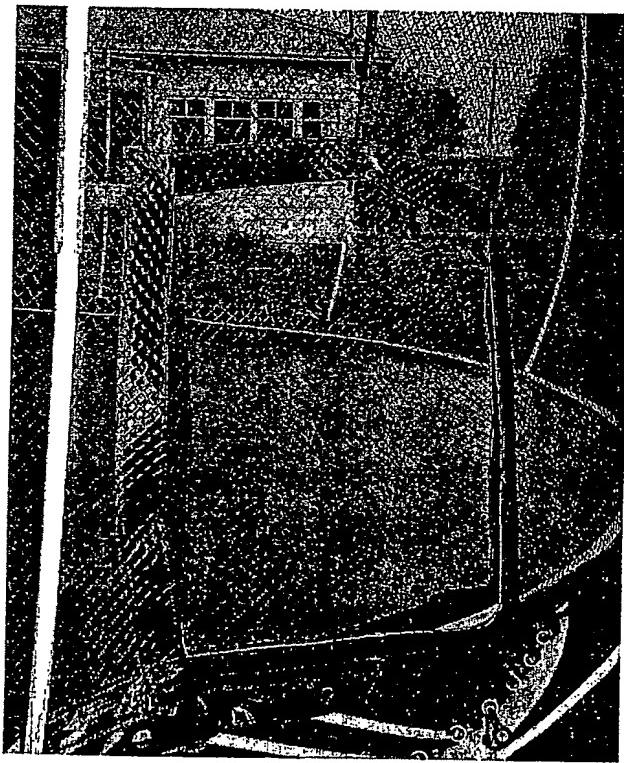


Figure 9: Flap door in enclosure, which seals with Velcro



Figure 10: Enclosure in use

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